

## PATENT

Atty. Dkt. No. APPM/007034.P1/DSM/LOW K/JW

**REMARKS**

This is intended as a supplemental response to the Final Office Action dated August 26, 2005, having a shortened statutory period for response set to expire on November 26, 2005. Please reconsider the claims pending in the application for reasons discussed below.

Claims 1-20 remain pending in the application. Claims 1-20 stand rejected by the Examiner. Reconsideration of the rejected claims is requested for reasons presented below.

Applicants propose canceling claims 1-8 and 17-18. Applicants propose rewriting claims 9 and 19 in independent form. Applicants propose amending claim 13 to include a period. Applicants submit that the changes proposed herein reduce the issues for appeal and do not introduce new matter or new issues.

Claims 1-8 and 17-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3, 17, 18, and 20 of co-pending U.S. Patent Application Serial No. 10/302,375. Applicants note that in the Advisory Action dated November 7, 2005, the Examiner approved the terminal disclaimer that was filed with the first Response to the Final Office Action dated August 26, 2005, and indicated that the obviousness-type double patenting rejection was obviated. However, the provisional rejection of claims 1-8 and 17-18 is now moot, as Applicants propose canceling claims 1-8 and 17-18, and U.S. Patent Application Serial No. 10/302,375 is no longer pending. Applicants respectfully request withdrawal of the previously filed terminal disclaimer over U.S. Patent Application Serial No. 10/302,375.

Claims 1-6 and 8 stand rejected under 35 U.S.C. § 102(e) as being anticipated by *Grill, et al.* (U.S. Patent No. 6,312,793). Applicants submit that the rejection of claims 1-6 and 8 is moot as Applicants propose canceling claims 1-6 and 8.

Claims 9-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Grill, et al.* in view of *Wakizaka, et al.* (U.S. Patent No. 6,270,900). The Examiner asserts that it would have been obvious that given the general and specific teachings of cycloalkene compounds in *Grill, et al.* and the showings of overlapping and equivalent

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cycloalkenes in *Wakizaka, et al.*, the compounds of *Wakizaka, et al.* would have been expected to be effective in *Grill, et al.*'s process, since they have been shown to have analogous ring opening behavior or chemistry. Applicants respectfully traverse the rejection.

Applicants agree that *Wakizaka, et al.* provides many possible cycloalkene compounds for forming a polymer by ring-opening or addition polymerization (column 3, line 36-column 6). However, while *Wakizaka, et al.* provides different cycloalkene compounds as suitable alternatives for forming a polymer by a ring-opening or addition polymerization, *Wakizaka, et al.* does not teach or suggest that all of the cycloalkene compounds provided therein are functionally equivalent in other types of processes or for forming other types of films. As noted in Applicants' previous response to the Final Office Action dated August 26, 2005, *Grill, et al.* does not teach or suggest that the films described therein are formed from polymers that are derived from ring-opening or addition polymerization. *Grill, et al.* describes reacting a first precursor gas containing Si, C, O, and H and a second precursor gas containing C and H in a plasma enhanced chemical vapor deposition chamber (column 2, lines 46-55) to form porous, multiphase low dielectric constant films comprising a first phase of SiCOH and a second phase of C and H dispersed in a host matrix of the first phase. Applicants submit that *Grill, et al.* and *Wakizaka, et al.*, individually or in combination, do not provide a motivation, suggestion, or reasonable expectation of success for using specific cycloalkene compounds which *Wakizaka, et al.* provides for polymerization processes, in *Grill, et al.*'s substantially different method that includes reacting a first precursor gas and a second precursor gas to form a porous, multiphase film. Applicants respectfully submit that the fact that there is overlap between the cycloalkene compounds named by *Grill, et al.* and *Wakizaka, et al.* is not sufficient to support the Examiner's assertion that it would have been obvious to use other cycloalkene compounds described in *Wakizaka, et al.* but not in *Grill, et al.* in the process of *Grill, et al.*

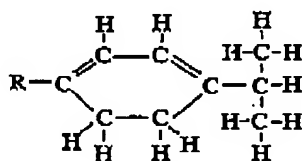
Thus, *Grill, et al.* in view of *Wakizaka, et al.* does not teach, show, or suggest a method for depositing a dielectric film, comprising delivering a gas mixture comprising one or more linear, oxygen-free organosilicon compounds, one or more oxygen-free hydrocarbon compounds comprising one ring and one or two carbon-carbon double

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bonds in the ring, and one or more oxidizing gases comprising oxygen (O<sub>2</sub>) to a substrate surface at deposition conditions sufficient to deposit a dielectric film comprising Si, O, and C on the substrate surface, wherein the one or more linear, oxygen-free organosilicon compounds comprises trimethylsilane and the one or more oxygen-free hydrocarbon compounds comprises alpha-terpinene, as recited in claim 9. Applicants respectfully request withdrawal of the rejection of claim 9 and of claim 10, which depends thereon.

*Grill, et al.* in view of *Wakizaka, et al.* does not teach, show, or suggest a method for depositing a dielectric film, comprising delivering a gas mixture comprising one or more linear, oxygen-free organosilicon compounds, one or more oxygen-free hydrocarbon compounds including the structure



wherein R is selected from the group consisting of linear alkane groups having one to five carbons, and one or more oxidizing gases comprising oxygen (O<sub>2</sub>) to a substrate surface at deposition conditions sufficient to deposit a dielectric film comprising Si, O, and C on the substrate surface, as recited in claim 11. Applicants respectfully request withdrawal of the rejection of claim 11 and of claims 12-15, which depend thereon.

Claims 7 and 17-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Grill, et al.* in view of *Goo, et al.* (U.S. Patent No. 6,057,251) or *Ross* (U.S. Patent No. 6,271,146). Applicants submit that the rejection of claims 7 and 17-18 is moot as Applicants propose canceling claims 7 and 17-18.

Claims 16 and 19-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Grill, et al.*, in view of *Wakizaka, et al.* and further in view of *Goo, et al.* or *Ross*. Applicants submit that the rejection of claim 16 is moot as Applicants propose canceling claim 16. Regarding claims 19-20, as discussed above, *Grill, et al.*, in view of *Wakizaka, et al.* does not teach or suggest a method for depositing a dielectric film that includes delivering a gas mixture comprising one or more linear,

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oxygen-free organosilicon compounds and one or more oxygen-free hydrocarbon compounds comprising one ring and one or two carbon-carbon double bonds in the ring, wherein the one or more oxygen-free hydrocarbon compounds comprises alpha-terpinene. Applicants further submit that the combination of *Grill, et al.* and *Wakizaka, et al.* with *Goo, et al.* or *Ross* does not teach or suggest a method for depositing a dielectric film that includes delivering a gas mixture comprising one or more linear, oxygen-free organosilicon compounds and one or more oxygen-free hydrocarbon compounds comprising one ring and one or two carbon-carbon double bonds in the ring, wherein the one or more oxygen-free hydrocarbon compounds comprises alpha-terpinene. Thus, *Grill, et al.*, in view of *Wakizaka, et al.* and further in view of *Goo, et al.* or *Ross* does not teach or suggest all of the limitations of claim 19. Applicants respectfully request withdrawal of the rejection of claim 19 and of claim 20, which depends thereon.

Claims 1-6 & 8 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-2, 5, 6, 8, 10-12, 14, 20, and 22-23 of U.S. Patent No. 6,797,643. Applicants note that in the Advisory Action dated November 7, 2005, the Examiner approved the terminal disclaimer that was filed with the first Response to the Final Office Action dated August 26, 2005, and indicated that the obviousness-type double patenting rejection was obviated. However, the rejection of claims 1-6 and 8 is now moot, as Applicants propose canceling claims 1-6 and 8. Applicants respectfully request withdrawal of the previously filed terminal disclaimer over U.S. Patent No. 6,797,643.

In conclusion, the references cited by the Examiner, alone or in combination, do not teach, show, or suggest the invention as claimed.

Having addressed all issues set out in the Final Office Action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



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